

ABSTRACT

A method for manufacturing a semiconductor device includes (a) forming electrical interconnections over a surface of a semiconductor substrate having integrated circuits, (b) providing a plurality of bonding pads disposed on the surface of the semiconductor substrate, (c) electrically connecting the electrical connections to respective bonding pads of the plurality of bonding pads, (d) electrically connecting the plurality of bonding pads to each of the integrated circuits, (e) forming resin layers so as to cover the electrical interconnections, (f) forming concave portions by a first process, each of the concave portions being disposed in a corresponding portion of the resin layers that cover the electrical interconnections, (g) curing the resin layers having the concave portion, (h) forming through-holes by removing bottoms of the concave portions by a second process that differs from the first process and (i) forming external connection terminals, each being disposed on a corresponding area of the electrical interconnections exposed through the through-holes.